Response to Public Comments

From April 27, 2000 to May 26, 2000, the United States Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) solicited Public Comments on a draft NPDES permit developed pursuant to an application from the South Essex Sewerage District (SESD) in Salem, Massachusetts for the reissuance of a permit to discharge sanitary and industrial wastewater from outfall 001 to Salem Sound. There was a public hearing requested and held on this draft permit on August 3, 2000 and the comment period was extended to August 18, 2000.

After a review of the comments received, the EPA has made a final decision to issue this permit authorizing this discharge. The following response to comments describes the changes that have been made to these permits from the drafts and the reasons for these changes and briefly describes and responds to the comments on the draft permits during the public comment period and the public hearing. Copies of the final permit may be obtained by writing or calling EPA's Massachusetts NPDES Permits Program (CPE), 1 Congress Street, Suite 1100, Boston, MA 02114-2023; Telephone: (617) 918-1579.

We would like to thank all those that provided comments on this draft permit and we ask that you stay involved in all future permit developments. The following parties commented on the permit and the responses to each one's comments begin on the following pages:

A) Comments submitted by the SESD:

Comment #1: The District requests that the permit be effective for five years.

Response: This permit will be issued for four years, which will bring it in line with the MA DEP's North Coastal watershed cycle for permit issuance.

Comment #2: The limit on average monthly flow (29.71 MGD) was not in the prior permit. Neither the draft permit nor the fact sheet provides the basis or necessity for the flow limitation. The District notes that this value is the annual average design flow of the plant and the plant can be expected to exceed the annual average 6 months out of 12.

Response: It is common practice to employ a flow limit for municipal permits. The flow limit is typically established at the design flow of the facility and serves to ensure that the permittee does not allow flows to the facility in excess of its design capacity. A flow limit can also be used as an incentive to intensify infiltration/inflow efforts and to encourage water conservation measures. As you state, the flow limit is an annual average limit, so a monthly average flow can exceed the limit without incurring a violation of the annual average. In addition, the Ipswich River, one of the main tributaries to Salem Sound, has had low flow situations during dry years and limiting the flow coming to SESD is one measure which would serve to minimize the occurrence of these conditions which have lead to water bans or restrictions in several communities.

Comment #3: The draft permit contains an average monthly limit for total residual chlorine (TRC) of 0.24 mg/l. This limit was derived by multiplying the chronic water quality criterion value for chlorine by a dilution of 32:1 which is the dilution achieved at a flow rate of 46 MGD. No explanation of the use of 46 MGD as a flow rate is provided in the fact sheet. In order to calculate such a limit properly ... one should use the average dilution, which is 58:1 according to the SESD Final EIR/Facilities Plan (May, 1992). Using this flow would result a limit of 0.42 mg/l, which is higher than the maximum daily limit of 0.338 mg/l and should therefore be deleted from the permit.

Response: The fact sheet states that the estimated flow dilution of 32:1 at the effluent flow of 46 MGD is considered appropriate and protective. Water quality criteria are derived from a 4 hour exposure so we would prefer to calculate the limit using a maximum four hour flow. Since this flow was not available from previous modeling efforts, the value of 46 MGD was used. We considered the fact that a fairly conservative dilution model was used in the previous facilities planning documents to derive these flows and chose to use the 46 MGD, which seems to roughly represent the midpoint between the monthly average and hourly maximum flows. The acute limit dilution is based on the maximum hourly flow of 76 MGD.

Comment #4: A new permit requirement reads “Effluent samples shall be taken after chlorination and prior to discharge to the effluent pipe.” This blanket requirement is contrary to the District’s practice and should be modified as set forth below. The District currently monitors the following parameters prior to chlorination: CBOD5, TSS, Total Nitrate, Total Ammonia Nitrogen, as N, Total Kjeldahl Nitrogen and LC50. The District currently monitors the following parameters after dechlorination: Oil and grease, pH, TRC and fecal coliform bacteria.

Response: This sentence is typically added for coding purposes for our Permit Compliance System (PCS) and the blanket statement used here was an oversight. The final permit has been changed to reflect the District’s practices.

Comment #5: With respect to the parameter CBOD5, the influent should be tested on the basis of BOD. See memorandum to the District from Camp, Dresser & McKee dated May 5, 1998.

Response: The regulations at 40 CFR 133.102 require that 85% removal of BOD is required of secondary treatment facilities such as this. Alternatively, this removal percentage can be calculated based on CBOD. As such, since the effluent limit is in the form of CBOD, the percent removal must be based on CBOD, thus requiring influent CBOD monitoring. If the permittee can show through sampling that the influent levels of BOD and CBOD are similar, then we may modify the permit to allow for the percent removal figure to be based on influent BOD levels instead of influent CBOD levels.

Comment #6: Footnote 6 on Page 3 states "The average of the three daily values (for fecal coliform) shall be reported as the maximum daily result." To be consistent with the calculation requirements for the monthly average limit and EPA instructions for preparing DMRs, the maximum daily result should be the geometric mean of the three daily samples taken.

Response: This understanding is correct and the appropriate language change has been made to the permit which notes that the geometric mean of the three samples taken shall be reported as the daily maximum value.

Comment #7: Subparagraph f. on Page 4 requires the District to submit a report when the 90 day average flow to the facility exceeds 80% of the design flow. This provision is inapplicable to the District and should be deleted. The design flow of the recently completed secondary treatment facilities was established in the SESD Final EIR/Facilities Plan. The flow during the 1990's, when planning was being conducted, was 28.8 MGD, which is 97% of the design flow of 29.71. This exceeds 80% of the design flow and because the plant was designed and approved to exceed 80% of the design flow from the outset, the requirement of 1.A.1.f. is not applicable to the District.

Response: Based on these facts, this requirement has been waived from this permit. It is noted that the Facilities Plan and the permitted flow represent more than 95% of the designated service area.

Comment #8: The draft permit imposes requirements concerning the control of infiltration and inflow from the District's member community collection systems as well as requirements concerning operation and maintenance of those systems and sanitary sewer overflows (SSOs). The authority or basis for these new requirements is not included in the permit or the fact sheet. The proposed requirements are inconsistent with the District's legal authority and its legal relationship with its members. Under the District's 1925 enabling legislation, each community, not the District, retained ownership of its own collection system and responsibility for its operation and maintenance. This paragraph should be deleted from the draft permit in its entirety.

Response: This permit requirement has been routinely included in municipal permits. We believe that the District does have some authority to direct its member communities to undertake certain operational and maintenance activities which would limit overall I/I to the collection system. According to the enabling legislation of 1925, " if it (SESD board of directors) deems it necessary or advisable for the proper and reasonable operation of the works may make regulations as to the character of any sewage, drainage or other wastes discharged into any sewer under its control or any

sewer tributary thereto, and may also make regulations governing the rate of discharge of any such sewage, drainage, or other waste; ..." Therefore, this requirement has remained and the District is responsible for collecting and reporting all pertinent information regarding I/I work from its own as well as its' member communities collection systems. If the District and its member communities cannot cooperatively develop methods to comply with the requirements, the District should report this to the EPA and DEP. Based on this information, we may modify the permit to include the member communities as co-permittees for the purpose of complying with these requirements.

Comment #9: The Ambient Monitoring Program is a new requirement, for which a basis is not included. The District's discharge is meeting all applicable requirements. There is no suggestion that the regulated activity, the District's discharge, is having any adverse effect on the benthos. The prior data, which was not "monitoring data," was gathered many years ago, initially in connection with a 301(h) waiver application, at times when secondary treatment was not in effect.

Response: See response to Comment B.3 below.

Comment #10: The discussion in the body of the fact sheet and the water quality based calculation in Attachment A regarding TRC should be revised to reflect our related comments above.

Response: As mentioned earlier, there will be no change in the final permit for TRC.

Comment #11: Although the District has eliminated the three referenced CSOs, there are still believed to be combined sewers in the tributary systems owned and operated by the member communities.

Response: The permit does not authorize the discharge from any CSOs but it does not prohibit combined sewers. If the combined sewers are causing overflows, the permit requires reporting of these overflows and requires SESD to work with its communities as specified in Section C of the permit and to work towards eliminating or minimizing these discharges, where necessary to prevent unauthorized discharges or to eliminate excessive I/I.

B) Comments submitted by Karen Hopkins of Salem Sound 2000:

Comment #1: Salem Sound 2000 requests that the dilution factors used to calculate permit limits for the SESD discharge be reevaluated based on the pollutant dispersion model currently being developed by Applied Science Associates under a grant from EOEA. The public comment process should be extended and formalized in a public hearing in order to allow time for this new information to provide valuable refinement to the draft permit limits.

Response: The dilution as specified in the draft permit will remain in the final permit. The next permit will consider alternative dilution calculations based on completed studies.

Comment #2: The fact sheet states that "EPA has determined that a formal EFH consultation with NMFS is not required because the proposed discharge will not adversely affect EFH". What was

the basis for this decision?
Response: EPA has reviewed the 1997 Division of Marine Fisheries report on water quality and marine resources in Salem Sound. This report, which contains the most current and comprehensive source of data for Salem Sound, suggests that no violations of water quality standards were occurring around the existing discharge. The only evidence of the outfall is an elevation of nitrogen and turbidity in the surface waters in a small area around the outfall. Since that data collection was completed, SESD has upgraded their treatment plant to full secondary. Historic data on the benthic community has shown that a stressed benthic community exists in the vicinity of the outfall. Thus, we are requiring SESD to monitor the changes in this community with the change to secondary treatment. EPA will carefully review SESD's toxicity testing results and determine if a Toxicity Reduction Evaluation is required. EPA's obligation under the Magnuson-Stevens Act is to minimize impacts to EFH. Based on the data available, the proposed monitoring, the upgrade to secondary treatment and additional toxicity testing, EPA has determined that no significant impact to essential fish habitat was occurring and that SESD was taking reasonable steps to minimize the impact of the discharge on the marine environment.

Comment #3: Salem Sound 2000 applauds the inclusion of a required ambient monitoring program (AMP) in the draft permit. Given the potential impact of the discharge of waterborne contaminants on pelagic organisms, water column monitoring for chlorophyll a, phytoplankton, dissolved oxygen, turbidity, toxics and nutrients should also be included. In addition, bulk sediment chemistry for toxic parameters including metals should be considered.

Response: EPA's authority to require ambient monitoring is limited to circumstances where there are documented water quality impacts which are caused by a particular discharge. Water quality data collected in the vicinity of the discharge in 1997, prior to the completion of secondary treatment, did not indicate any significant water quality impacts. Historic benthic community data showed a stressed community and thus the need to build secondary treatment and the need to monitor the community's recovery. If the benthic community shows no signs of recovery and the presence of the outfall is suspected for retarding the recovery, additional treatment options may need to be considered.

Comment #4: The fact sheet states that the LC50 limit of 100% was violated three times for each of the two test species between 5/98 and 10/99, most of which was during operation of the secondary wastewater treatment system. Frequent violation of the LC50 limit for both organisms indicates that there is a potential toxic impact to marine organisms in the receiving waters. SS2000 urges action be taken to address this problem. One action could be to conduct a toxicity reduction evaluation (TRE). The EPA and DEP should also consider more frequent toxicity testing, a chronic toxicity limit, and permit limits for toxic constituents such as heavy metals.

Response: We are aware of WET violations. EPA enforcement staff intend to fully review the record in conjunction with plant performance and effluent data. Based on this review, they may initiate a compliance action which may indeed include the conducting of a TRE, among other items.

Comment #5: The requirements for the chlorination system report are much too general to be

effective and should include specific thresholds and triggers for specific actions to be taken within a specified time period.

Response: This requirement is a fairly recent one for municipal dischargers and requires an annual report. It is somewhat general due to the variety of the types of plants that are subject to it, and we intend on requesting additional information if the submittals are inadequate. The goal is for this analysis to determine whether or not additional measures are needed to ensure compliance with these limits on an ongoing basis.

Comment #6: Chlorine concentrations below the detection limit of 50 ug/l should be reported as < 50 ug/l and not 0 ug/l on the DMR to accurately reflect the limit of detection for this constituent.

Response: Our permit compliance system (PCS) requires that these values are reported as zeroes for data processing purposes, since an entry of < 50 generates an error message in the system.

Comment #7: Nitrogen is recognized for its importance in the eutrophication of coastal embayments and efforts are underway to develop nutrient criteria based on these observations. Therefore, it seems inappropriate to allow the discharger to apply for removal of these (nutrient) monitoring requirements after only one year. This permit should include ambient monitoring for both nitrogen in various forms and chlorophyll a.

Response: One year of nutrient monitoring under this permit would give us about 2 years worth of
data, since these monitoring requirements went into effect with the permit modification in October of 1999. If data show that there are consistently low levels of nutrients in the discharge, we may have enough justification to remove these requirements or reduced their testing frequency. We have not added ambient monitoring of nitrogen at this time. See response to comment B.3. for further discussion of this issue.

Comment #8: SS2000 would like to see a monitoring requirement for a measure of petroleum hydrocarbons other than "oil and grease" since the potential toxicity of these constituents is a greater concern than the development of a sheen.

Response: Toxicity results have dramatically improved with the upgrade to secondary treatment, but problems remain. EPA is reviewing the past toxicity data, in conjunction with plant performance and effluent quality data. Based on this review, EPA may require a TRE, which may identify a class of chemicals or geographic location that is responsible for the toxicity results. Based on the results of this evaluation, appropriate control mechanisms can be employed. EPA believes that this would be a more effective way of reducing the toxicity problem, than by adding monitoring requirements.

Comment #9: While the effluent toxicity tests will provide toxicity data, they will not provide information on the levels of copper in the effluent.

Response: The quarterly, whole effluent toxicity testing required by this permit does include analytical monitoring of the effluent for several parameters, including copper.

Comment #10: The draft permit includes no language about water conservation efforts through public outreach and education. Given the very severe impacts of water withdrawal on the Ipswich River in recent years, this should also be incorporated into the permit.

Response: Although we do not typically require such measures in our municipal permits, we would certainly encourage SESD to conduct outreach efforts which would serve to provide a greater appreciation of the function of the plant and should result in its users being more cognizant of how their everyday activities, collectively, could have a negative impact on the plant and water resources. We would encourage the continuation of any efforts which the District is currently involved with, such as a recent, local cable TV program featuring a tour of the facility. Also refer to the response to comment A.2.

C) Comments submitted by Todd Callaghan of the Coastal Zone Management office of the Massachusetts Executive Office of Environmental Affairs:

Comment #1: Whole effluent toxicity testing results from 5/98 to 8/99 signify that a toxicity problem exists at the SESD plant and the ambient monitoring program should reflect this concern. Shouldn't the facility evaluate the cause of this toxicity so that it can take steps to reduce the pollutant of concern?

Response: See the responses to Comments B.4 and B.8.

Comment #2: In an effort to be as protective of the environment as possible, shouldn't the acute TRC limit be calculated using the observed maximum flow?

Response: According to EPA's water quality criteria document (Gold Book), it is appropriate to use a maximum hourly flow to calculate an acute limit. The dilution calculated from the maximum hourly flow of 76 MGD has been used.

Comment #3: Under the AMP, shouldn't the word "population" be replaced with "community"? What is the community that will be monitored? Are plants included? What are the invertebrates of interest? This section states that ambient monitoring will be conducted in years 1, 3 and 5 of the permit but the permit will expire in four years. Given that the SESD has failed many of its toxicity tests, it may be necessary to expand monitoring to include plankton and other pelagic species.

Response: The word population has been replaced with "community" as the intent of the AMP was to measure effects to the entire benthic community instead of a few particular species. We would expect that the study which is proposed by the District will look at a variety of plants and invertebrates and we would assure this with our review and feedback before approving such a study. The final permit language has been changed slightly, and the ambient monitoring is required within the first year of the permit and every other year thereafter, since there is no year 5 of the permit and

the permittee would be required to continue monitoring in the instance that the next permit was not issued in a timely manner. Also refer to response to comment B.8.

D) Comments submitted by Mason Weinrich of the Whale Center of New England:

Comment #1: We are concerned with the extent of the proposed monitoring system, especially in the water column.

Response: See response to comment B.3.

Comment #2: There is no consideration of the Essential Fish Habitat requirements of the Magnuson-Stevens Sustainable Fisheries Act.

Response: See response to Comment B.2.

Comment #3: There is no monitoring of total petroleum hydrocarbons despite their toxicity to the system.

Response: There is no evidence that these constituents are in the discharge at levels that would violate water quality standards. Also see response to comment B.8.

E) Comments submitted by Robert Buchsbaum of the Massachusetts Audubon Society:

Comment #1: We urge that the monitoring plan for SESD include, at a minimum, ambient water monitoring for temperature, salinity, dissolved oxygen, turbidity, total suspended solids, chlorophyll a, total Kjeldahl N, ammonia-N, and nitrate-N.

Response: See the response to comment B.3.

Comment #2: We also urge that SESD work together with the Massachusetts Division of Marine Fisheries in periodic sampling of the important biological components of Salem Sound. DMF's recently completed survey should be followed up in future years to determine the impacts, if any, of secondary treatment on the overall ecological health of the Sound.

Response: The Massachusetts EOEA watershed team is the mechanism to best direct this cooperative effort. The EPA and DEP will be working on this issue through the EOEA basin team and will encourage the inclusion of all federal and state agencies, as well as local entities, including SESD, to work together in identifying and prioritizing the basin's water quality and water management issues and solutions, including those of Salem Sound.

Comment #3: We urge that a scientific advisory panel be set up to provide a similar function for SESD as that for the MWRA under its NPDES permit. This panel could also provide advice on special studies needed to fully understand the impact of the effluent on Salem Sound.

Response: We would expect that ongoing studies and efforts such as those in the previous response will serve to increase our understanding of the health of Salem Sound and will assist the agencies in future decision making regarding permitting. I think that due to Federal Committee Advisory Act (FACA) issues, we are backing away from advisory panels and technical advisory committees.

Comment #4: A model of the Sound's flushing dynamics and effluent dilution is currently being developed and it would make sense to wait until this study is completed before finalizing the permit.

Response: This permit has been finalized and the findings of this report will be considered in future permit modification or reissuance efforts.

F) Comments submitted by the Massachusetts Division of Marine Fisheries:

Comment #1: Concerns have been raised on benthic habitat impacts due to effluent discharge, phytoplankton community alterations due to elevated nutrients in the effluent, the contribution of effluent fecal coliform bacteria to violations of surface water quality criteria for designated uses, and toxicity impacts from effluent discharge (PCBs and petroleum hydrocarbons in particular) on surrounding marine life. The current draft contains a provision for ambient monitoring of benthic habitat that is acceptable. But there are no other provisions to this section.

Response: See the response to Comment B.3.

Comment #2: A DMF study of the marine resources of Salem Sound in 1997 identified higher concentrations of fecal coliform bacteria at the Haste outfall station (outfall 001) than other stations in the Sound. To address concerns on fecal coliform bacteria and other pollutant dispersion, we recommend that dye studies are required for the discharge. If conducted in association with ongoing modeling efforts, it may be possible to address long-standing questions of dilution and dispersion patterns. These efforts would be important to meet the public's interest in maintaining swimming beaches and the long term goal of opening shellfish beds, both located only a few kilometers from the discharge.

Response: This is another opportunity for SESD and interested parties to work together. The permit contains ongoing monitoring for many parameters, including fecal coliform and dye testing is typically outside the scope of our requirements. The State has a beach monitoring program which would indicate high levels of coliform bacteria which may lead to beach closures. SESD's chlorination and de-chlorination capabilities should work towards reducing fecal coliform and chlorine residual in the effluent and the permit includes a requirement to report on these matters. In addition, this report was conducted prior to SESD putting secondary treatment on line. We would like to give the District the opportunity to show that there will be effluent improvements before creating additional monitoring requirements. Since secondary treatment went on line, SESD has routinely met its effluent bacteria limit. The bacteria discharge limit is equivalent to the ambient shellfish standard number, thus shellfish bed or beach closures due to high concentrations of bacteria should not be attributable to the SESD effluent.

Comment #3: We request that the permit include requirements that SESD notify DMF of plant malfunctions, overflows, or other conditions which result in increases to normal bacterial discharges to Salem Sound. We would like to work with SESD to develop a Memorandum of Understanding for communicating during such events. The cooperation will be necessary to meet long term goals of opening parts of Salem Sound for shellfish harvest.

Response: Although DMRs are available for review during business hours at EPA and DEP offices, we believe that the permittee should notify DMF and the USFDA of any chlorination system failures, as this type of information is critical to obtain as quickly as it is known. The final permit has included language which requires the permittee to notify DMF and the USFDA of chlorination system failures.

Comment #4: In regards to the EFH determination in the fact sheet, we find the determination that the proposed discharge will not adversely impact EFH is an arbitrary decision. The only support to this statement is Table 2, which contains flawed information and is not sufficient to allow the concluded determination.

Response: The permit's effluent limits and monitoring, toxicity testing, ambient monitoring program and other requirements will serve as ongoing measures of any effects on aquatic life. EPA and DEP feel that these measures are adequate to address EMF issues and do not feel like there is sufficient documentation with which to allow for additional requirements. Also see response to comment B.2.

Comment #5: The 1997 DMF study found much higher concentrations of dissolved inorganic nitrogen and orthophosphate near the Haste outfall than at other sampling stations in the sound. These concentrations raise questions on the impacts to local populations of phytoplankton, submerged vegetation and benthic algae. It will not be possible to understand the relationship of nutrient inputs to the health of aquatic resources without baseline monitoring.

Response: While we would expect to see elevated nutrient levels near the outfall, documented effects to the aquatic and benthic life need to be documented before an NPDES permit could require such baseline monitoring. As discussed earlier, the AMP will re-evaluate the previously degraded benthic community near the outfall to determine whether the change to secondary treatment has resulted in improvements. The 1997 DMF study was conducted prior to the upgrade to secondary treatment and showed elevated nutrient levels in the immediate vicinity of the outfall. Submerged aquatic vegetation is sensitive to high concentrations of nutrients. A study of eelgrass meadows along the northern shoreline of Salem Sound by the New England Aquarium, EPA and Massachusetts Audubon in 1996 showed that those populations were healthy and did appear to be impaired. In addition, the presence of eelgrass growing within Inner Salem Harbor in several locations where flushing is more limited and the absence of low dissolved oxygen concentrations suggests that eutrophication is not a severe problem.

G) Comments submitted by Polly Bradley of Safer Waters in Massachusetts (SWIM):

Comment #1: The effect of chlorine and dechlorination chemicals on juvenile lobsters will not be addressed.

Response: The permit includes effluent limits on TRC and fecal coliform and we feel that these requirements are adequate to protect aquatic life.

Comment #2: We are glad to see that monitoring will continue for oil & grease and for nitrate, ammonia nitrogen and Kjeldahl monitoring. We are sad to see that these requirements may possibly be dropped after a year.

Response: The permittee can request a permit modification at any time for reduced pollutant monitoring. If such a request had merit, we would public notice such a draft modification and issue it if there was no considerable comment against such an action. In the case of these parameters, there may come a time during this permit life where we have developed a good database of sampling and where we may be justified to reduce or eliminate the testing frequency. In this case, we would also consider other data sources, such as pretreatment reports and toxicity test reports which could provide an ongoing source of sampling for some of these parameters.

H) Comments submitted by the Coastal Advocacy Network:

Comment #1: This draft permit for SESD, the second largest discharger to Massachusetts Bay, includes only a benthic monitoring requirement. This level of monitoring is not adequate to monitor potential impacts to the embayment as it does nothing to investigate changes in the phytoplankton community that result from nutrient enrichment, loading of pathogens, or the impact of toxic discharges on sensitive marine life.

Response: See the response to comments B.3, B.8 and F.5.

Comment #2: The previous EPA Region 1 Administrator stated that the MWRA's NPDES permit, which includes ambient water quality requirements and outside review by a team of independent scientists, was going to be the model for all future permits. CAN strongly supports the MWRA model of a scientific advisory panel to oversee monitoring programs for industrial and wastewater discharges. Such a panel with meetings open to the public would go a long way to addressing the concerns raised by citizens, so would be beneficial for all.

Response: The MWRA permit is clearly a substantially larger and much more complex permit and we feel that the measures prescribed in the SESD permit are appropriate with which to monitor the discharge and its effects. Also see response to comment E.3.

I) William, Emily, Erika and Carol Crawford

Comment #1: We believe that water quality monitoring for this permit should take a broader view, not just looking at end of pipe discharges, but, instead, be used to determine the effects of those

discharges on the marine ecology. We believe that SESD should be held responsible to establish that the Salem plant does not negatively affect the marine environment of the waters off the North Shore.

Response: We believe that this permit does address these concerns and future Salem Sound efforts and studies are planned which will take a broader view. SESD's recent addition of secondary treatment and chlorination and the monitoring requirements, toxicity testing and ambient monitoring requirement in the permit should provide us with enough information to determine whether this discharge is affecting aquatic life and resources.

Comment #2: We live in Nahant, near Short Beach and we are plagued with a free-floating form of algae, which decays on our beaches, releasing gases with an obnoxious odor. This algae, Pilayella littoralis, is apparently nitrogen limited, such that nitrogen in the water is of particular concern to SESD's neighbors. We urge that the EPA require SESD to monitor nitrogen at various locations downstream of its discharge. Other pollutants, such as grease and oil, ammonia and chlorine should also be monitored. Monitoring to determine the effect of species such as juvenile lobsters should also be required of this permittee.

Response: We acknowledge your concerns, but see reasoning for our permit decisions in response to comments B.3, B.8 and F.5.